

Technical Data Sheet

Polyflam RPP 2000 E K2043 NAT



Polypropylene, Homopolymer

Product Description

Flame-retardant PP-Compound; halogenfree according to DIN VDE 0472 part 815; for extrusion, CU-stabilized

| | |
|--------------------------|---|
| Processing Method | Extrusion |
| Attribute | Halogen Free; High Viscosity; Homopolymer |
| Additive | Flame Retardant |
| Resin ID | PP FR(53) |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---------------|-------------------------|-------------|
| Physical | | | |
| Melt Volume Flow Rate, (230 °C/2.16 kg) | 3.0 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 0.910 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Stress at Yield, (Type 1A, 50 mm/min) | 35.0 | MPa | ISO 527-2 |
| Flexural Modulus, (2.0 mm/min) | 1500 | MPa | ISO 178 |
| Tensile Strain at Yield, (Type 1A, 50 mm/min) | 10 | % | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 1500 | MPa | ISO 527-1 |
| Flexural Stress | | | |
| (2.0 mm/min, 3.5%) | 33.0 | MPa | ISO 178 |
| (2.0 mm/min, 7.0%) | 40.0 | MPa | ISO 178 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 13 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 3.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched | | | |
| (23 °C, Type 1, Edgewise) | No Break | | ISO 179 |
| (-30 °C, Type 1, Edgewise) | 30 | kJ/m ² | ISO 179 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 87.0 | °C | ISO 306 |
| (A (10N), 50 °C/h) | 152 | °C | ISO 306 |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 91.0 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 61.0 | °C | ISO 75-2/A |
| Electrical | | | |
| Comparative Tracking Index (CTI) | 600 | V | IEC 60112 |

Flammable

| Glow Wire Flammability Index | | | |
|--------------------------------|-----|----|----------------|
| (0.75 mm) | 960 | °C | IEC 60695-2-12 |
| (1.5 mm) | 960 | °C | IEC 60695-2-12 |
| (3.0 mm) | 960 | °C | IEC 60695-2-12 |
| Glow Wire Ignition Temperature | | | |
| (0.75 mm) | 750 | °C | IEC 60695-2-13 |
| (1.5 mm) | 750 | °C | IEC 60695-2-13 |
| (3.0 mm) | 750 | °C | IEC 60695-2-13 |

UL Information

| Flame Rating | | | |
|-----------------------------|-----|--|----------------------|
| (1.6 mm) | V-2 | | UL 94 |
| (3.2 mm) | V-2 | | UL 94 |
| (0.8 mm) | V-2 | | UL 94 |
| Flammability Classification | | | |
| (0.8 mm) | V-2 | | IEC 60695-11-10, -20 |
| (1.6 mm) | V-2 | | IEC 60695-11-10, -20 |
| (3.2 mm) | V-2 | | IEC 60695-11-10, -20 |

| Extrusion Parameters | Nominal Value | Units |
|-----------------------------|----------------------|--------------|
| Drying Time | 2.0 to 4.0 | hr |
| Melt Temperature | 170 to 210 | °C |
| Suggested Max Moisture | <0.10 | % |
| Drying Temperature | 70 to 80 | °C |